ABSTRACT

An pose estimation and comparison system has an pose estimation and comparison unit (20).   The pose estimation and comparison unit (20) has an pose candidate decision unit (30) which decides an pose candidate. According to the generated pose candidate, a comparison image generation unit (40) generates a plurality of comparison images close to the input image, while projecting a three-dimensional object model obtained from a three-dimensional object model storage unit (45) to a two-dimensional image.   A sharpness extraction unit (60) extracts a first sharpness amount reflecting the sharpness from each of the generated comparison images.   A weighted difference calculator (50) calculates a plurality of weighted differences by weighting the first sharpness amount to the difference between the input image and each of the comparison images.   A determination unit (52) selects a comparison image having the smallest weighted difference as the comparison image closest to the input image, thereby performing the pose estimation and comparison.